

Claims

[c1] A method for making a customized sole insert comprising the steps of:

- selecting an insert from a selection of inserts having various sizes, widths and arch heights, said insert comprising:
- a bottom shell having a top surface, a bottom surface, an aperture extending from said top surface to said bottom surface, a plurality of canals emanating away from the aperture on said top surface;
- a formable layer comprising a material which will permanently harden shortly after contact with an accelerant;
- a top cushion, the circumference of said top cushion connected to said shell so that said formable layer is sealed between said top cushion layer and said shell;
- injecting through said aperture a sufficient amount of accelerant to permanently harden said formable layer;
- inserting said insert and the wearer's foot into the wearer's shoe upon said insert and applying a downward force upon the insert; and,
- maintaining a downward force upon said insert until said formable layer substantially hardens.

- [c2] The method of claim 1 wherein said insert further comprises a sponge layer positioned between said bottom shell and said formable layer.
- [c3] The method of claim 1 where said formable layer comprises a sufficient amount of polyurethane casting material and hydroxypropyl methyl-cellulose.
- [c4] The method of claim 1 where said bottom shell is comprised of a thin layer of pliable material and a sock is disposed about said insert and where the wearer's foot is inserted into said sock prior to inserting said insert into a wearer's shoe.
- [c5] The method of claim 1 where said formable layer comprises a sufficient amount of polyurethane casting material and hydroxypropyl methyl-cellulose.
- [c6] The method of claim 3 wherein said insert further comprises a sponge layer positioned between said bottom shell and said formable layer.
- [c7] The method of claim 6 where said formable layer comprises a sufficient amount of polyurethane casting material and hydroxypropyl methyl-cellulose.
- [c8] An insert for creating a sole insert which is custom fit to the plantar aspect of a wearer's foot comprising:

a bottom shell;
a formable layer comprising a material which will permanently harden upon contact with an accelerant;
a top cushion, the circumference of said top cushion layer connected to said shell so that said formable layer is sealed between said top cushion layer and said shell;
where upon injection of a sufficient amount of accelerant into the formable layer and subsequent downward forces exerted upon said top cushion of the insert by a wearer's foot for a sufficient period of time, said formable layer will conform to the plantar aspect of said wearer's foot and permanently harden.

[c9] The method of claim 8 where said formable layer comprises a sufficient amount of woven polyurethane casting material and hydroxypropyl methyl-cellulose.

[c10] The method of claim 8 wherein said bottom shell further comprises a top surface, a bottom surface, an arch area, an aperture extending from said top surface to said bottom surface, a plurality of canals emanating away from the aperture on said top surface, and where said aperture is positioned through said arch area.

[c11] The method of claim 8 where said formable layer comprises a sufficient amount of woven polyurethane casting material and hydroxypropyl methyl-cellulose.

[c12] A method for customizing a sole-insert comprising the steps of:

- selecting an insert from a selection of inserts having various sizes, widths and arch heights, said insert comprising:
- a bottom shell having a top surface, a bottom surface, an aperture extending from said top surface to said bottom surface, a plurality of canals emanating away from the aperture on said top surface;
- a formable layer comprising a material which will permanently harden upon contact with an accelerant;
- a top cushion, the circumference of said top cushion connected to said shell so that said formable layer is sealed between said top cushion layer and said shell;
- means for delivering a sufficient amount of accelerant to permanently harden said formable layer;
- thereafter, inserting said insert into a wearer's shoe;
- thereafter, inserting the wearer's foot into the wearer's shoe upon said insert and applying a downward force upon the insert;
- thereafter, maintaining a downward force upon said sole insert until said formable layer substantially hardens;
- and,
- separating the top cushion and hardened formable layer from the bottom shell, the top cushion and hardened

formable layer now collectively referred to as a customized sole insert.

- [c13] The method of claim 10 where said formable layer comprises a sufficient amount of woven polyurethane casting material and hydroxypropyl methyl-cellulose.
- [c14] The method of claim 10 wherein said insert further comprises a sponge layer positioned between said bottom shell and said formable layer.
- [c15] The method of claim 12 where said formable layer comprises a sufficient amount of woven polyurethane casting material and hydroxypropyl methyl-cellulose.
- [c16] The method of claim 3 wherein said insert further comprises a sponge layer positioned between said bottom shell and said formable layer.